

## **AMENDMENTS TO THE CLAIMS**

The following listing of claims will replace all prior versions and listings of claims in the application.

### **LISTING OF CLAIMS**

1. (Currently Amended) A droplet ejecting device comprising:  
an ejector that is adapted to eject ~~ejecting means for ejecting~~ a liquid stored in a pressure chamber from an ejecting nozzle by applying pressure to ~~said~~ the pressure chamber;  
~~droplet formation assisting means for giving, to said liquid being ejected from said ejecting nozzle, an energy that assists droplet formation~~  
an ejection timing detector that is adapted to detect a start timing at which a liquid column starts being ejected from the ejecting nozzle;  
a droplet separator that is adapted to give, the liquid column, an energy that separates the liquid column from the liquid stored in the pressure chamber; and  
a controller that is adapted to control the droplet separator to give an energy at a timing when a predetermined time period has elapsed since the start timing detected by the ejection timing detector.
2. (Withdrawn) A droplet ejecting device according to Claim 1,  
wherein ~~said~~ the energy is optical energy.
3. (Withdrawn) A droplet ejecting device according to Claim 2,  
wherein ~~said~~ the optical energy is coherent-light energy.

4. (Withdrawn) A droplet ejecting device according to Claim 2,  
wherein ~~said~~ the optical energy comprises plural light beams traveling in different  
directions.

5. (Withdrawn) A droplet ejecting device according to Claim 2,  
wherein ~~said~~ the optical energy is comprises at least two light beams traveling in  
opposite directions.

6. (Withdrawn) A droplet ejecting device according to Claim 1,,  
wherein ~~said~~ the energy is thermal energy.

7. (Cancelled)

8. (Withdrawn) A droplet ejecting device according to Claim-7 1,  
wherein ~~said control means~~ the controller sets a longer period as ~~said~~ the  
predetermined time period where a volume of liquid to be ejected is larger.

9. (Withdrawn) A droplet ejecting device according to Claim ~~7~~1, further comprising:

~~light emission means for emitting light onto said liquid being ejected from said ejecting nozzle;~~

~~photoreception means facing said light emission means for receiving light emitted from said light emission means through said liquid being ejected from said ejecting nozzle,~~

a light emitter that is adapted to emit light onto the liquid column;

a photo-receiver that is adapted to receive light emitted from the light emitter through the liquid, the photo-receiver facing the light emitter,

wherein ~~said the~~ ejection timing detector ~~detection means~~ detects ~~said the~~ start timing at which said liquid starts being ejected in response to a change in an intensity of light received by ~~said photoreception means~~ the photo-receiver.

10. (Withdrawn) A droplet ejecting device according to Claim 9,

wherein ~~said the~~ droplet separator separates the liquid column formation ~~assisting means~~ ~~assists formation of a droplet by~~ emitting from ~~said the~~ light emitter ~~emission means~~ a light having larger energy than an energy of ~~said the~~ light used for detecting ~~said the~~ timing at which said the liquid starts being ejected.

11. (Currently Amended) A droplet ejecting method, comprising:

~~an ejecting step of~~ ejecting a liquid stored in a pressure chamber from an ejecting nozzle ~~of said pressure chamber~~ by applying pressure to ~~said~~ the pressure chamber; and

~~a droplet formation assisting step for giving, to said liquid being ejected from said ejecting nozzle, an energy that assists droplet formation.~~

detecting a start timing at which a liquid column starts being ejected from the ejecting nozzle; and

giving, to the liquid column, an energy that separates the liquid column from the liquid stored in the pressure chamber, the energy being given at a timing when a predetermined time period has elapsed since the start timing.

12. (Currently Amended) A droplet ejecting method according to Claim 11, wherein ~~said~~ the energy is optical energy.

13. (Currently Amended) A droplet ejecting method according to Claim 12, wherein ~~said~~ the optical energy is coherent-light energy.

14. (Currently Amended) A droplet ejecting method according to Claim 12, wherein ~~said~~ the optical energy comprises plural light beams traveling in different directions.

15. (Currently Amended) A droplet ejecting method according to Claim 12, wherein ~~said~~ the optical energy comprises at least two light beams ~~[[of]]~~ traveling in opposite directions.

16. (Currently Amended) A droplet ejecting method according to Claim 11, wherein ~~said~~ the energy is thermal energy.

17. (Cancelled)

18. (Currently Amended) A droplet ejecting method according to Claim ~~17~~ 11, wherein, ~~in said droplet formation assisting step,~~ a longer period is set as ~~said~~ the predetermined time period where a volume of liquid to be ejected is larger.

19. (Currently Amended) A droplet ejecting method according to Claim ~~11~~<sup>17</sup>,  
further comprising:

~~wherein said ejection timing detecting step includes:~~

~~emitting light from a light emitter onto the liquid column; and emission means for  
emitting light onto liquid being ejected from said ejecting nozzle;~~

~~receiving light emitted from said light emission means by a photoreception  
means that faces said light emission means through said liquid being ejected; and~~

~~detecting said timing at which said liquid starts being ejected in response to a  
change in an intensity of light received by said photoreception means~~

receiving, by a photo receiver, the light emitted from the light emitter through the  
liquid, the receiver facing the light emitter through the liquid column,

wherein the start timing is detected in response to a change in an intensity of  
light received by the photo-receiver.

20. (Currently Amended) A droplet ejecting method according to Claim 19,  
further comprising:

increasing the energy of the light emitted by the light emitter at a timing when a  
predetermined time period has elapsed since the start timing.

wherein the energy to be given to the liquid column is provided by the light  
emitted by the light emitter.

~~wherein said droplet formation assisting step includes assisting formation of a  
droplet by emitting from said light emission means a light having a larger energy than an  
energy of said light used for detecting said timing at which said liquid starts being  
ejected.~~

21. (Withdrawn) A droplet ejecting method according to Claim 11,  
wherein the method is used for patterning one of a wiring, a color filter, a  
photoresist, a microlens array, an electroluminescence material, a bio-substance, and  
an element included in an electronic optical device.

22. (Withdrawn) An electronic optical device ~~comprising~~ including an element that is patterned using a droplet ejecting method, the method comprising:

~~an ejecting step of~~ ejecting a liquid stored in a pressure chamber from an ejecting nozzle ~~of said pressure chamber~~ by applying pressure to ~~said~~ the pressure chamber; and

~~a droplet formation assisting step for giving, to said liquid being ejected from said ejecting nozzle, an energy that assists droplet formation.~~

detecting a start timing at which a liquid column starts being ejected from the ejecting nozzle; and

giving, to the liquid column, an energy that separates the liquid column from the liquid stored in the pressure chamber, the energy being given at a timing when a predetermined time period has elapsed since the start timing.

23. (Withdrawn) An electronic optical device according to Claim 22, wherein ~~said~~ the energy is optical energy.

24. (Withdrawn) An electronic optical device according to Claim 23, wherein ~~said~~ the optical energy is coherent-light energy.

25. (Withdrawn) An electronic optical device according to Claim 23, wherein ~~said~~ the optical energy comprises plural light beams traveling in different directions.



26. (Withdrawn) An electronic optical device according to Claim 23,  
wherein ~~said~~ the optical energy comprises at least two light beams traveling in  
opposite directions.

27. (Withdrawn) An electronic optical device according to Claim 22,  
wherein ~~said~~ the energy is thermal energy.

28. (Cancelled)

29. (Withdrawn) An electronic optical device according to Claim ~~28~~22,  
wherein, ~~in said droplet generating assisting step,~~ a longer period is set as ~~said~~  
the predetermined time period where a volume of liquid to be ejected is larger.

30. (Withdrawn) An electronic optical device according to Claim ~~28~~22,  
wherein the method further comprises ~~said ejection timing detecting step~~  
~~includes:~~  
emitting light from a light emitter onto the liquid column; ~~and emission means for~~  
~~emitting light onto liquid being ejected from said ejecting nozzle;~~  
~~receiving light emitted from said light emission means by a photoreception~~  
~~means that faces said light emission means through said liquid being ejected; and~~  
~~detecting said timing at which said liquid starts being ejected in response to a~~  
~~change in an intensity of light received by said photoreception means.~~  
receiving, by a photo receiver, the light emitted from the light emitter through the  
liquid, the receiver facing the light emitter through the liquid column,  
wherein the start timing is detected in response to a change in an intensity of  
light received by the photo-receiver.

31. (Withdrawn) An electronic optical device according to Claim 30,  
~~wherein said droplet formation assisting step includes assisting formation of a  
droplet by emitting from said light emission means a light having a larger energy than an  
energy of said light used for detecting said timing at which said liquid starts being  
ejected.~~

wherein the method further comprises:

increasing the energy of the light emitted by the light emitter at a timing when a  
predetermined time period has elapsed since the start timing.

wherein the energy to be given to the liquid column is provided by the light  
emitted by the light emitter.